

SECTION 01730 — OPERATION AND MAINTENANCE DATA

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Format and content of manuals
- B. Submittal of manuals

1.02 REFERENCES

- A. The following documents form a part of these specifications to the extent stated herein.
- B. Code of Federal Regulations (CFR)

29 CFR 1910.147(c)(4) Energy Control Procedure

1.03 GENERAL REQUIREMENTS

- A. Quality Assurance: Prepare instructions and data by personnel experienced in maintenance and operation of described products.
- B. Compile operating and maintenance data in the form of manuals appropriate for care and maintenance of products provided under the subcontract and specific information requested in various technical sections of these specifications.

1.04 FORMAT

- A. Prepare data in the form of an instructional manual.
- B. Binders: Commercial quality, 8-1/2 x 11 inch, three side-ring type "D" binders with durable plastic covers. When multiple binders are used, correlate data into related consistent groupings.
- C. Cover: Identify each binder with typed or printed title OPERATION AND MAINTENANCE MANUALS. Identify title of project, identify building/structure applicable, and identify subject matter of contents.
- D. Dividers: Provide tabbed dividers for each separate product and system with typed description of product and major component parts of equipment.
- E. Text: Manufacturer's printed data or typewritten data on 20 pound bond paper.

- F. Drawings: Provide with reinforced punched binder tab. Bind in with text; fold larger drawings to size of text pages.
- G. Content: Prepare a table of contents for each volume with each equipment or system identified in three parts as follows:
 - G.1 Part 1: Directory, listing names, addresses, and telephone numbers of the Plant Operations Engineer, Contractor, lower-tiered subcontractors, and major equipment suppliers.
 - G.2 Part 2: Operation and maintenance instructions arranged by equipment and or system and subdivided by specification section. For each category, identify names, addresses, and telephone numbers of subcontractors and suppliers. Identify the following:
 - G.2.a Significant design criteria
 - G.2.b Equipment list and description
 - G.2.c Parts list for each component, including recommended spare parts
 - G.2.d Operating instructions
 - G.2.e Maintenance instructions for equipment and systems
 - G.2.f Maintenance instructions for special finishes including recommended cleaning methods and materials and special precautions identifying detrimental agents
 - G.3 Part 3: Project documents and certificates including the following:
 - G.3.a Shop drawings and product data
 - G.3.b Certificates
 - G.3.c Photocopies of warranties
- 1.05 CONTENT, EACH VOLUME
 - A. Table of Contents: Provide title of project; names, addresses, and telephone numbers of the Contractor with name of responsible parties; schedule of products and systems indexed to content of the volume and indexed by reference to the contract documents.
 - B. For Each Product or System: List names, addresses, and telephone numbers of subcontractors and suppliers including local source of supplies and replacement parts.

- C. Product Data: Mark each sheet to clearly identify specific products and component parts and data applicable to installation. Delete inapplicable information.
- D. Drawings: Supplement product data to illustrate relations of component parts of equipment and systems to show control and flow diagrams. Coordinate drawings with information in the project as-built documents.
- E. Typed Text: As required to supplement product data. Provide logical sequence of instructions for each procedure incorporating manufacturer's instructions specified in section 01300 "Submittals."
- F. Warranties: As specified in section 01740 "Warranties."

1.06 MANUAL FOR MATERIALS AND FINISHES

- A. Building Products, Applied Materials, and Finishes: Include manufacturer and (name, address, phone number) product data, with catalog number, size, composition, and color and texture designations. Provide information for reordering custom manufactured products.
- B. Instructions for Care and Maintenance: Include manufacturer's recommendations for cleaning agents and methods, precautions against detrimental agents and methods, and recommended schedule for cleaning and maintenance.
- C. Moisture Protection and Weather Exposed Products: Include product data listing applicable reference standards, chemical composition, and details of installation. Provide recommendations for inspections, maintenance, and repair.
- D. Additional Requirements: As specified in individual product specification sections.
- E. Provide a listing in table of contents for design data with tabbed fly sheet and space for insertion of data.

1.07 MANUAL FOR PANEL SYSTEM

- A. Each Item of Panel System: Include description of system and component parts, including engineering data, tests, and complete nomenclature and model number of replaceable parts.
- B. Maintenance Requirements: Include routine procedures and guide for preventative maintenance and trouble shooting; disassembly, repair, and reassembly instructions; and alignment and adjusting instructions.
- C. Include manufacturer's printed maintenance instructions.

- D. Provide original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.
- E. Additional Requirements: As specified in individual product specification sections.
- F. Provide a listing in table of contents for design data, with tabbed dividers and space for insertion of data.

1.08 SUBMITTAL OF MANUALS

- A. Submit two copies of preliminary draft of proposed formats and outlines of contents before start of work. The Government will review draft and return one copy with comments.
- B. Submit one copy of completed volumes of the manuals 14 calendar days prior to final inspection. This copy will be reviewed and returned after final inspection with comments. Revise content of all document sets as required prior to final submission.
- C. Submit six sets of revised final volumes in final form within 10 days after final inspection.

PART 2 PRODUCTS

Not used

PART 3 EXECUTION

Not used

END OF SECTION